

**Commonwealth of Kentucky  
Energy and Environment Cabinet  
Department for Environmental Protection  
Division for Air Quality  
200 Fair Oaks Lane, 1<sup>st</sup> Floor  
Frankfort, Kentucky 40601  
(502) 564-3999**

**Final**

**AIR QUALITY PERMIT  
Issued under 401 KAR 52:030**

**Permittee Name:** Orbit Gas Storage, Inc.  
**Mailing Address:** 600 Barret Boulevard, Henderson, KY 42420

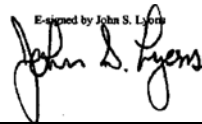
**Source Name:** Kentucky Energy Hub  
**Mailing Address:** Stearman Lane  
Mortons Gap, KY 42440

**Source Location:** Stearman Lane, Mortons Gap, KY

**Permit ID:** F-08-030  
**Agency Interest #:** 82821  
**Activity ID:** APE20080002  
**Review Type:** Conditional Major, Construction / Operating  
**Source ID:** 21-107-00159

**Regional Office:** Owensboro Regional Office  
3032 Alvey Park Dr. W., Suite 700  
Owensboro, KY 42303  
(270) 687-7304  
**County:** Hopkins

**Application**  
**Complete Date:** September 24, 2008  
**Issuance Date:** March 30, 2009  
**Revision Date:** N/A  
**Expiration Date:** March 30, 2014

E-signed by John S. Lyons  


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**John S. Lyons, Director  
Division for Air Quality**

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	Permit type	Activity#	Complete Date	Issuance Date	Summary of Action
<b>F-08-030</b>	<b>Initial</b>	<b>APE20080001</b>	<b>9/24/2008</b>	<b>3/30/2009</b>	<b>Initial Construction Permit</b>

## **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

### Emission Unit 01 4-Cycle Lean Burn Natural Gas Fired Reciprocating Internal Combustion Engine (RICE)

Table 1. Summary of the emission points, descriptions, and rated capacities

EMISSION POINTS	DESCRIPTION	MAXIMUM OPERATING RATE
EP-1	<b>ENGINE 1</b> <b>Caterpillar G3606 IC Engine</b> 4-cycle lean burn reciprocating w/ 1,775 bhp Primary Fuel: Natural Gas Installation Date: 2009 Stack: S-1 Control Device: Oxidation Catalyst	11,200 scf/hr
EP-2	<b>ENGINE 2</b> <b>Caterpillar G3606 IC Engine</b> 4-cycle lean burn reciprocating w/ 1,775 bhp Primary Fuel: Natural Gas Installation Date: 2009 Stack: S-2 Control Device: Oxidation Catalyst	11,200 scf/hr
EP-3	<b>ENGINE 3</b> <b>Caterpillar G3606 IC Engine</b> 4-cycle lean burn reciprocating w/ 1,775 bhp Primary Fuel: Natural Gas Installation Date: 2009 Stack: S-3 Control Device: Oxidation Catalyst	11,200 scf/hr

Table 2. Control devices and control efficiencies at the emission points

EMISSION POINTS	STACKS	CONTROL DEVICES	CONTROL EFFICIENCY
EP-1	S1	OX1 – Oxidation Catalyst	93% (CO Removal) 94% (Formaldehyde Removal)
EP-2	S2	OX2 – Oxidation Catalyst	93% (CO Removal) 94% (Formaldehyde Removal)
EP-3	S3	OX3 – Oxidation Catalyst	93% (CO Removal) 94% (Formaldehyde Removal)

**SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****APPLICABLE REGULATION:**

**40 CFR 63 Subpart ZZZZ**, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*. Subpart ZZZZ applies to stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAPs and pursuant to 40 CFR 63.6590 (a)(2)(iii), a stationary RICE located at an area source of HAP emissions that commences construction on or after June 12, 2006 is considered a new stationary RICE for the purposes of Subpart ZZZZ.

**NON-APPLICABLE REGULATIONS:**

**40 CFR 60 Subpart JJJJ**, *Stationary Spark Ignition Internal Combustion Engines*. Subpart JJJJ does not apply to KY Energy Hub because each engine is greater than 1,350 bhp.

**40 CFR 63 Subpart HHH**, *National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities*. Pursuant to 40 CFR 63.1270, Subpart HHH applies to natural gas transmission and storage facilities that are major sources of HAPs. OGS has applied to operate KY Energy Hub as a minor source with a conditional major permit of federally enforceable limits under 401 KAR 52:030; therefore, the requirements of this subpart will not apply to the facility.

*State-Origin Requirements:*

**401 KAR 63:020**, *Potentially hazardous matter or toxic substances*, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances, provided that such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality. 401 KAR 63:020 does not apply to KY Energy Hub because the emissions from EP-1 – EP-3 are subject to 40 CFR 63 Subpart ZZZZ.

**1. Operating Limitations:**

Refer to the compliance demonstration method for subsection **2. Emission Limitations** and **7. Specific Control Equipment Operating Conditions**.

**2. Emission Limitations:**

Refer to **Section D, Source Emission Limitations and Testing Requirements**, for source-wide emission limits of carbon monoxide (CO), volatile organic compounds (VOC), and single and combined HAPs.

**Compliance Demonstration Method:**

Refer to **Section D. 3** for compliance with source-wide limits, and testing requirements below in Subsection 3. In addition, the oxidation catalyst shall be utilized and maintained any time the emission units are in operation for each operating unit according to the specific control equipment operating conditions in subsection **7**.

## **SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **3. Testing Requirements:**

- a. Pursuant to 401 KAR 50:045, Section 1, the cabinet may require the owner or operator of any affected facility to sample emissions in accordance with such methods, as the cabinet shall prescribe.
- b. For one of the emission units, the permittee shall determine the CO emission reduction efficiency of the oxidation catalyst by performing Reference Method 10 tests or other methods approved by the Division. The pressure drop across the catalyst and temperature of the catalyst inlet and the exhaust shall be recorded during testing.
- c. For one of the emission units, the permittee shall determine the formaldehyde emission reduction efficiency of the oxidation catalyst by performing Reference Method 320 tests or other methods approved by the Division. The pressure drop across the catalyst and temperature of the catalyst inlet and the exhaust shall be recorded during testing.
- d. Refer to **Section G. 4** and **G. 5** for general compliance and testing requirements.

### **4. Specific Monitoring Requirements:**

- a. The following parameters shall be monitored:

<b>Control Device</b>	<b>Emission Points</b>	<b>Stacks and Vents</b>	<b>Parameter and Schedule</b>
Oxidation Catalysts (3)	EP-1, EP-2 & EP-3	S1, S2, S3	Monthly inspection on pressure drop across the catalyst and the catalyst input temperature

- b. Refer to **Section F** for general monitoring requirements.

### **5. Specific Recordkeeping Requirements:**

- a. Records of preventive maintenance performed for the above devices in accordance with **7. Specific Control Equipment Operating Conditions** shall be maintained. Computerized records shall be considered adequate to meet this requirement. This data shall be provided to the Division personnel upon request.
- b. Refer to **Section F** for general recordkeeping requirements.

### **6. Specific Reporting Requirements:**

Refer to **Section F.9.** for Compliance Certification Requirements.

### **7. Specific Control Equipment Operating Conditions:**

- a. The oxidation catalysts shall be in operation at all times as the related processes are in operation and the pressure drop and temperature shall be monitored to maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 % load  $\pm$  10 % from the pressure drop across the catalyst that was measured during the last test and the catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1350°F. Preventive maintenance shall be performed in accordance with the manufacturer's recommendations.

**SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**7. Specific Control Equipment Operating Conditions:**

- b. Refer to **Section E, Source Control Equipment Requirements**, for further specific control equipment operating conditions.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Emission Unit 02     Triethylene Glycol (TEG) Dehydration Unit

Table 3. Summary of the emission point, description, and rated capacity

EMISSION POINTS	DESCRIPTION	MAXIMUM OPERATING RATE
EP-4	<b>Glycol Dehydrator/ Reboiler</b> <b>Model 54/600M/7</b> Primary Fuel for Reboiler: Natural Gas Installation Date: 2009 Stack: S-4 Control Device: Thermal Oxidizer	4.17 mmscf/hr

Table 4. Control device and control efficiency at the emission point

EMISSION POINTS	STACKS	CONTROL DEVICES	CONTROL EFFICIENCY
EP-4	S4	TO1 – Thermal Oxidizer	99% (VOC and BTEX Removal)

\*Note: BTEX (Benzene, toluene, ethylbenzene, and xylene emissions)

### APPLICABLE REGULATION:

**40 CFR 63 Subpart HH**, *National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities*. Pursuant to 40 CFR 63.760 (b) and 63.671 Subpart HH applies to facilities that are major or area sources for HAPs; and that process, upgrade, or store hydrocarbon liquids prior to the point of custody transfer; or that process, upgrade, or store hydrocarbon liquids prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. KY Energy Hub will be an area source of HAP emissions, which processes natural gas in a glycol dehydrator (EP-4) prior to the point of custody transfer.

### NON-APPLICABLE REGULATIONS:

**40 CFR 63 Subpart HHH**, *National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities*. Pursuant to 40 CFR 63.1270, Subpart HHH applies to natural gas transmission and storage facilities that are major sources of HAPs. OGS has applied to operate KY Energy Hub as a minor source with a conditional major permit of federally enforceable limits under 401 KAR 52:030; therefore, the requirements of this subpart will not apply to the facility.

### *State-Origin Requirements:*

**401 KAR 63:020**, *Potentially hazardous matter or toxic substances*, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances, provided that such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality. 401 KAR 63:020 does not apply to KY Energy Hub because the emissions from EP-4 are subject to 40 CFR 63 Subpart HH.



**SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****1. Operating Limitations:**

The permittee shall operate the TEG Dehydration Unit so as to be in compliance with the emission limitations specified below at all times.

**2. Emission Limitations:**

- a. The actual average benzene emissions from the glycol dehydration unit process vent shall be less than 0.90 Mg/yr (1.0 tpy) in order to meet the exemption criteria specified in 40 CFR 63.764 (e)(2)(ii).
- b. Refer to **Section D, Source Emission Limitations and Testing Requirements**, for source-wide emission limits of carbon monoxide (CO), volatile organic compounds (VOC), and single and combined HAPs.

**Compliance Demonstration Method:**

- a. The permittee shall determine actual average benzene emissions using the model GRI-GLYCalc<sup>TM</sup>, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc<sup>TM</sup> Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1). [40 CFR 63.772 (b)(2)(i)]
- b. The controlled benzene emission rate shall be determined by applying the thermal oxidizer VOC destruction efficiency to the emission rate determined by the GRI-GLYCalc<sup>TM</sup> model.
- c. Refer to **Section D. 3** for compliance with source-wide limits.

**3. Testing Requirements:**

Testing shall be conducted at such times as may be required by the Cabinet in accordance with 401 KAR 50:045, Section 4. If the Division requires it, the permittee shall determine the VOC emission reduction efficiency of the thermal oxidizer by performing Reference Method 25 tests or other methods approved by the Division.

**4. Specific Monitoring Requirements:**

The combustion chamber temperature of the thermal oxidizer shall be monitored continuously by a temperature sensor(s) and recorded continuously by a strip chart recorder.

**5. Specific Recordkeeping Requirements:**

- a. The permittee shall comply with the recordkeeping provisions of 40 CFR 63, Subpart A that apply to sources subject to 40 CFR 63 Subpart HH. The recordkeeping provisions of 40 CFR 63 Subpart A that apply and those that do not apply are listed in Table 2 of 40 CFR 63 Subpart HH.
- b. The owner or operator of a glycol dehydration unit that meets the exemption criteria in 40 CFR 63.764 (e)(1)(ii) shall maintain the records of the actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with 40 CFR 63.772 (b)(2) [40 CFR 63.774 (d)(1)(ii)].

**SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- c. The combustion chamber temperature of the thermal oxidizer shall be recorded continuously (at least once every 15 minutes) by a strip chart recorder. The combustion temperature data shall be reduced to 3-hour block averages.
- d. In addition, for all required emissions control equipment, the permittee shall keep the following records:
  - (1) Design and/or manufacturer's specifications.
  - (2) Preventive maintenance records related to performance of control equipment.
  - (3) All periods, during normal operating conditions, where emissions control equipment, required by this permit is bypassed.
  - (4) Description of operating, temperature and pressure-measuring devices (e.g., automatic strip charts, digital data acquisition systems).
  - (5) Data from the temperature measuring device (as prescribed by Subsection **5. Specific Recordkeeping Requirements** b. and any temporary data logged manually as back up.
  - (6) Inspection reports and maintenance performed in response to recommendations in inspection reports.
  - (7) Monitoring system malfunctions.
  - (8) Calibrations, accuracy audits and validation check records for monitoring equipment specified in **4. Specific Monitoring Requirements**.

**6. Specific Reporting Requirements:**

- a. Area sources located outside UA plus offset and UC boundaries are not required to submit notifications of compliance status under 40 CFR 63.9 (h)(1) through (3). [Table 2 of 40 CFR 63 Subpart HH].
- b. The owner or operator of a TEG dehydration unit located at an area source that meets the criteria in 40 CFR 63.764 (e)(1)(i) or 63.764 (e)(1)(ii) is exempt from the reporting requirements for area sources in paragraphs (c)(1) through (7) of 40 CFR 63.775 for that unit.
- c. Refer to **Section F.9.** for Compliance Certification Requirements.

**7. Specific Control Equipment Operating Conditions:**

- a. The permittee shall install, calibrate, operate, and maintain a device equipped with a continuous recorder to measure temperature in the combustion chamber of the thermal oxidizer. The temperature monitoring device shall be equipped with a continuous recorder and shall have a minimum accuracy of  $\pm 2$  percent of the temperature being monitored in  $^{\circ}\text{C}$ , or  $\pm 2.5$   $^{\circ}\text{C}$ , whichever value is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.
- b. The thermal oxidizer shall be in operation at all times as the related processes are in operation. Preventive maintenance shall be performed in accordance with the manufacturer's recommendations.
- c. Refer to **Section E, Source Control Equipment Requirements**, for further specific control equipment operating conditions.

**SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

<b><u>Description</u></b>	<b><u>Generally Applicable Regulations</u></b>
<b>Auxiliary Generator</b> Capacity: 250 kilowatts Fuel: Natural Gas Operating Schedule: 500 hrs/yr	None

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. Hazardous Air Pollutants (HAP), VOC and CO, as measured by methods referenced in 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.
3. As a voluntary source-wide emissions cap to preclude the applicability of 401 KAR 52:020, Title V Permits:
  - a. Emissions of the CO and VOC shall not equal or exceed 90 tons per year; and
  - b. The emissions of each individual HAP shall not equal or exceed nine (9) tons per year. The summation of all HAP emissions shall not equal or exceed twenty-two and half (22.5) tons per year. A year is defined as any consecutive twelve-month period.

### **Compliance Demonstration Method:**

Compliance with the annual emissions and processing limitations imposed pursuant to 401 KAR 52:030, Section 1, and contained in this permit, shall be based on the sum of the monthly emission rates from each emission point (i.e., **Sections B**) during each twelve (12) consecutive month period. The monthly emission rates shall be defined as the sum of the products of the processing rates multiplied by each respective emission factor for each emission point. The permittee shall maintain monthly records, readily accessible to Division personnel upon request, of source wide emission and processing rates.

## **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS**

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

## SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, place (as defined in this permit), and time of sampling or measurements;
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:030 Section 3(1)(f)1a and Section 1a-7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
3. In accordance with the requirements of 401 KAR 52:030 Section 3(1)f the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
  - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
  - b. To access and copy any records required by the permit;
  - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].

**SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:030 Section 22. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
9. Pursuant to 401 KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit in accordance with the following requirements:
  - a. Identification of each term or condition;
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent;
  - d. The method used for determining the compliance status for the source, currently and over the reporting period.
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

## **SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality  
Owensboro Regional Office  
3032 Alvey Park Drive W., Suite 700  
Owensboro, KY 42303-2191

Division for Air Quality  
Central Files  
200 Fair Oaks Lane, 1<sup>st</sup> Floor  
Frankfort, KY 40601

10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee. If a KYEIS emission survey is not mailed to the permittee, then the permittee shall comply with all other emission reporting requirements in this permit.
11. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
- a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
    - (1) The size and location of both the original and replacement units; and
    - (2) Any resulting change in emissions;
  - b. The potential to emit (PTE) of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
  - c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
  - d. The replacement unit shall comply with all applicable requirements; and
  - e. The source shall notify Regional office of all shutdowns and start-ups.
  - f. Within six (6) months after installing the replacement unit, the owner or operator shall:
    - (1) Re-install the original unit and remove or dismantle the replacement unit; or
    - (2) Submit an application to permit the replacement unit as a permanent change.



**SECTION G - GENERAL PROVISIONS****1. General Compliance Requirements**

- a. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030 Section 3(1)(b) and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a-2 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-5 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030 Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:030 Section 12;
  - (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 6 and 7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030 Section 3(1)(c)].

**SECTION G - GENERAL PROVISIONS (CONTINUED)**

- f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030 Section 7(1)].
- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-11 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a-12-b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6) [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:030 Section 11(3)].
- l. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

## SECTION G - GENERAL PROVISIONS (CONTINUED)

- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
- q. Pursuant to 401 KAR 52:030, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
  - (1) Applicable requirements that are included and specifically identified in this permit; and
  - (2) Non-applicable requirements expressly identified in this permit.

### 2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:030 Section 12].
- b. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:030 Section 8(2)].

### 3. Permit Revisions

- a. Minor permit revision procedures specified in 401 KAR 52:030 Section 14(3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:030 Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

**SECTION G - GENERAL PROVISIONS (CONTINUED)****4. Construction, Start-Up, and Initial Compliance Demonstration Requirements**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission points EP-1, EP-2, EP-3 and EP-4 in accordance with the terms and conditions of this permit.

- a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
- b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
  - (1) The date when construction commenced.
  - (2) The date of start-up of the affected facilities listed in this permit.
  - (3) The date when the maximum production rate specified in the permit application was achieved.
- c. Pursuant to 401 KAR 52:030, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- d. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the draft permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
- e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.
- f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

**SECTION G - GENERAL PROVISIONS (CONTINUED)****5. Testing Requirements**

- a. Pursuant to 401 KAR 50:045 Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.
- b. Pursuant to 401 KAR 50:045 Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

**6. Acid Rain Program Requirements**

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

**7. Emergency Provisions**

- a. Pursuant to 401 KAR 52:030 Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
  - (1) An emergency occurred and the permittee can identify the cause of the emergency;

**SECTION G - GENERAL PROVISIONS (CONTINUED)**

- (2) The permitted facility was at the time being properly operated;
  - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
  - (4) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
  - (5) Notification of the Division does not relieve the source of any other local, state or federal notification requirements.
- b. Emergency conditions listed in General Provision G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030 Section 23(3)].
  - c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:030 Section 23(2)].
8. Ozone depleting substances
- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
    - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
    - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
    - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
    - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
    - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
    - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
  - b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

## **SECTION G - GENERAL PROVISIONS (CONTINUED)**

### 9. Risk Management Provisions

- a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center  
P.O. Box 1515  
Lanham-Seabrook, MD 20703-1515.

- b. If requested, submit additional relevant information to the Division or the U.S. EPA.

**SECTION H - ALTERNATE OPERATING SCENARIOS**

None

**SECTION I - COMPLIANCE SCHEDULE**

None